TABLE 3.2-3 National Ambient Air Quality Standards, Tennessee State Ambient Air Quality Standards, Maximum Allowable Increments for Prevention of Significant Deterioration, and Highest Background Levels Representative of the ETTP Site

		NAAQS/SAAQS[b]		PSD Increments[d] ($\mu g/m^3$)		Highest Background Level	
Pollutant[a]	Averaging Time	Value	Type[c]	Class I	Class II	Concentration[e]	Location (Year)
SO_2	3 hours	0.50 ppm (1,300 $\mu g/m^3$)	S	25	512	0.109 ppm (22%)	Rockwood (1998)
	24 hours	0.14 ppm (365 $\mu g/m^3$)	P	5	91	0.031 ppm (22%)	Rockwood (2001)
	Annual	0.03 ppm (80 $\mu g/m^3$)	P	2	20	0.003 ppm (10%)	Oak Ridge (2000)
NO_2	Annual	0.053 ppm (100 $\mu g/m^3$)	P, S	2.5	25	0.008 ppm (15%)	Oak Ridge (2000)
CO[f]	1 hour	35 ppm (40 mg/m^3)	P,S	–[g]	–	11.1 ppm (32%)	Knoxville (1999)
	8 hours	9 ppm (10 mg/m^3)	P, S	–	–	4.9 ppm (54%)	Knoxville (1997)
O_3	1 hour	0.12 ppm (235 $\mu g/m^3$)	P, S	–	–	0.116 ppm (97%)[h]	Oak Ridge (1999)
	8 hours	0.08 ppm (157 $\mu g/m^3$)	P, S	–	–	0.099 ppm (124%)[i]	Anderson County (2002)
PM_{10}	24 hours	150 $\mu g/m^3$	P, S	8	30	69.9 $\mu g/m^3$ (47%)	ETTP (2000)
	Annual	50 $\mu g/m^3$	P, S	4	17	23.2 $\mu g/m^3$ (46%)	ETTP (2000)
$PM_{2.5}$	24 hours	65 $\mu g/m^3$	P, S	–	–	50.4 $\mu g/m^3$ (78%)[h]	Harriman (2000)
	Annual	15 $\mu g/m^3$	P, S	–	–	18.4 $\mu g/m^3$ (123%)	Harriman (2000)
Pb	Calendar quarter	1.5 $\mu g/m^3$	P, S	–	–	0.0063 $\mu g/m^3$ (0.4%)	ETTP (2000)

Footnotes on next page.

TABLE 3.2-3 (Cont.)

[a] CO = carbon monoxide; NO_2 = nitrogen dioxide; O_3 = ozone; Pb = lead; $PM_{2.5}$ = particulate matter ≤2.5 μm; PM_{10} = particulate matter ≤10 μm; and SO_2 = sulfur dioxide.

[b] The SO_2 (3-hour and 24-hour) and CO standards are attained when the stated value is not exceeded more than once per year. The SO_2 (annual), NO_2, and Pb standards are attained when the stated value is not exceeded. The O_3 (1-hour) standard is attained when the stated value is not exceeded more than three times in three years. The O_3 (8-hour) standard is attained when the 3-year average of the annual fourth-highest daily maximum 8-hour average concentration does not exceed the stated value. The PM_{10} (annual) and $PM_{2.5}$ (annual) standards are attained when the 3-year average of the annual arithmetic means does not exceed the stated value. The PM_{10} (24-hour) standard is attained when the 3-year average of the 99th percentile values does not exceed the stated value. The $PM_{2.5}$ (24-hour) standard is attained when the 3-year average of the annual 98th percentile values does not exceed the stated value.

[c] P = primary standard whose limits were set to protect public health; S = secondary standard whose limits were set to protect public welfare.

[d] Class I areas are specifically designated areas in which the degradation of air quality is severely restricted under the Clean Air Act; Class II areas have a somewhat less stringent set of allowable emissions.

[e] Values in parentheses are monitored concentrations as a percentage of NAAQS or SAAQS.

[f] The NAAQS have a primary standard only; the Tennessee SAAQS, however, have a secondary standard as well.

[g] A dash indicates that no standard exists.

[h] Second-highest value.

[i] Fourth-highest value.

Sources: 40 CFR 50; TDEC (1999); 40 CFR 52.21; DOE (2002c); EPA (2003a).